-732 P058/071 F-681

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicants or agent's P24037PC00	file reference FOR F	URTHER ACTION	CTION See Notification of Transmittal of International Pretiminary Examination Report (Form PCT/PEA/416)				
International applicati PCT/ZA 03/00041	l	International filing date (day/month/year) 26.03.2003		Priority date (daylmonthlyear) 28.03.2002			
International Patent Classification (IPC) or both national classification and IPC F42D1/055, F42D1/055							
Applicant SMI TECHNOLOGY (PTY) LIMITED et al:							
This internation Authority and	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.						
2. This REPOR	2. This REPORT consists of a total of 4 sheets, including this cover sheet.						
heen ar	This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).						
These annex	These annexes consist of a total of 10 sheets.						
3. This report co	ontains indications relating to t	he following items:					
! ⊠ 6:	asis of the opinion						
	iority						
	on-establishment of opinion w	ith regard to novelty, i	nventive step a	nd industrial applicability			
l	ck of unity of invention			and the state of t			
	easoned statement under Ruk ations and explanations supp			ventive step or industrial applicability;			
–	ertain documents cited	ū					
VII □ c	ertain defects in the internation	nat application					
VIII 🗆 c	enain observations on the inte	mational application					
Date of submission of the demand		Date of	completion of th	is report			
04.09.2003			07.06.2004				
Name and mailing address of the international preliminary examining authority:			ized Officer	purite Principa.			
D-8029	gautony. an Patent Office 8 Munich 9 89 2399 - 0 Tx: 523656 epmu d 19 89 2399 - 4465		ra, M one No. +49 89 2	2399-2090			



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

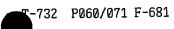
International application No.

PCT/ZA 03/00041

1	Basis	of th	e re	nort
-	D4310	~	r	,,,,,,,

 With regard to the elements of the international application (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)):

	Description, Pages						
1-19		•	as originally filed				
	Clai	ms, Numbers					
	1-37	7	filed with telefax on 13.02.2004				
	Drav	rawings, Sheets					
1,8-8/8		8.48	as originally filed				
2.	With lang	ith regard to the language, all the elements marked above were available or furnished to this Authority in the nguage in which the international application was filed, unless otherwise indicated under this item.					
	The	lese elements were available or furnished to this Authority in the following language: , which is:					
	0	the language of a tra	e language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).				
the language of publication of the international application (under Rule 48.3(b)).							
		the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).					
3.	With	Vith regard to any nucleotide and/or amino acid sequence disclosed in the international application, the nternational preliminary examination was carried out on the basis of the sequence listing:					
		contained in the international application in written form.					
		filed together with th	ed together with the international application in computer readable form.				
		furnished subsequer	rnished subsequently to this Authority in written form.				
		furnished subseque	mished subsequently to this Authority in computer readable form.				
		The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.					
	-	The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.					
ŧ.	The amendments have resulted in the cancellation of:						
		the description,	pages:				
		the claims,	Nos.:				
		the drawings,	sheets:				
			•				





International application No.

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5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

- 6. Additional observations, if necessary:
- V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- 1. Statement

Novelty (N)

Yes: Claims
1-37
No: Claims
Inventive step (IS)

Yes: Claims
1-37
No: Claims
Industrial applicability (IA)

Yes: Claims
1-37
No: Claims

2. Citations and explanations

see separate sheet



INTERNATIONAL PRELIMINARY

International application No. PCT/ZA 03/00041

EXAMINATION REPORT - SEPARATE SHEET

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1: US-A-4 976 199 (MORAITIS THRASYVOULAS ET AL) 11 December 1990 (1990-

D2: EP-A-0 897 098 (SMI TECHNOLOGY PTY LIMITED) 17 February 1999 (1999-02-17)

In particular the document D1 is regarded as being the closest prior art to the subjectmatter of claims 1, 16, 26 and 30 and shows (the references in parentheses applying to this document):

a blasting operation device and method with several detonator regions, wherein the shock wave caused by a detonation in a first hole is monitored at a second, spaced apart detonator region. The sensor in this second detonator region is connected via dedicated leads to a circuit controller. Different parameters of the blast are measured and communicated to a central computer, that calculates the whole blasting operation.

The subject-matter of claims 1, 16, 26 and 30 differs from this known the arrangement in D1 in that the controlling means remote from the blast receive input of determined blast features signals directly from the first detonation region or the subsequent ones, rather than receiving signals referring to the previous blast.

The subject-matter of the above clams is therefore new (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as increasing accuracy whilst diminishing complexity, in particular regarding the wiring operation.

The solution to this problem proposed in the above claims of the present application is considered as involving an inventive step (Article 33(3) PCT), since none of the available citations mention or suggest the possibility of the controlling unit sensing blast features directly from the blast region during the blast.

The dependent claims define narrower embodiments of the main invention, so that they also fulfil the requirements of Article 33 PCT.